



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,564	12/08/2003	Timothy D. Sporre	758.1429USU1	6355

7590 02/21/2006  
Merchant & Gould P.C.  
P.O. Box 2903  
Minneapolis, MN 55402-0903

EXAMINER
----------

PHAM, MINH CHAU THI

ART UNIT	PAPER NUMBER
----------	--------------

1724

DATE MAILED: 02/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/731,564

Applicant(s)

SPORRE ET AL.

Examiner

Minh-Chau T. Pham

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/12/05</u> . | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-14 are again rejected under 35 U.S.C. 103(a) as being unpatentable over Stuble et al (4,904,282), in view of Gillingham et al (5,820,646).

Stuble et al disclose a method of cleaning a filter media construction by directing a flow of pressurized fluid into the media construction (col. 5, lines 13-24 and lines 46-68), removing at least some particulate material from the media construction, and directing a pulse of compressed gas into the media construction (col. 6, line 62 through col. 9, line 68). Stuble et al further disclose the filter media construction (15) being arranged in a V-shape (col. 4, lines 29-37) to define a clean air plenum (21) therebetween and the first filter element and the second filter element being arranged adjacent to each other to form a V-configuration (see Fig. 3). Claims 1-14 differ from the disclosure of Stuble et al in that the filter media construction being made from a flexible permeable material having a plurality of flutes. Gillingham et al disclose a filter media (22) made from a flexible permeable material having a plurality of flutes (24) wherein each of the flutes (24) has a first end portion adjacent to the media construction first end and a second end portion adjacent to the media construction second end, and the selected ones of the flutes (24) being open at the first end portion and closed at the second end portion (36) and selected ones of the flutes being closed at the first end portion and open at the second end portion (see Fig. 1, col. 4, line 66 through col. 5, line 39). It would have been obvious to a person having ordinary skill in the art at the time

the invention was made to substitute the filter (15) by a filter media with a plurality of flutes as taught by Gillingham et al in the method of cleaning a filter media of Stuble et al since the structure of fluted filter media is known to increase the filtration surface area for high filtration efficiency.

Although throughout the entire document, Stuble discloses a method of cleaning filters by drawing or sucking air out from the filter element, but Stuble does disclose on page 5, lines 10-13, as “the air to be purified can be **blown** or **sucked** through the filter device (10) by air conveying means such as at least one fan, bellows or the like (not shown)”. Therefore, Stuble clearly discloses that the method of cleaning filters can be either blown or sucked through the filters and Stuble elects to illustrate his method of cleaning filter by sucking throughout the reference.

Regarding to claims 9-14, it is obvious to have the shape of filters as V-shaped or any other desired shape such as “non-rectangular parallelogram shape” since it is well settled that mere change of shape without affecting the function of the part would have been an obvious design modification. See *Eskimo Pie Corp v. Levous et al* 3 USPQ 23.

Claims 15-20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stuble et al (4,904,282), in view of Gillingham et al (5,820,646), and further in view of Brunner (5,964,909).

Claims 15-20 and 22 call for a gas turbine air intake system comprising a frame having a tube sheet defining an aperture and the filter element mounted on the frame and sealed against the tube sheet. Brunner discloses an air filtration system comprising a frame having a tube sheet defining an aperture and the filter element mounted on the

frame and sealed against the tube sheet (see details of Figure 2). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide an air filtration system with filter elements mounted on a tubesheet with a sealing method as taught by Brunner so that the filter elements of Stuble et al and Gillingham to provide for a secure dust tight seal and to facilitate easy insertion and removal of filter elements into and from a filtration unit.

Regarding to claim 22, it is obvious to have the shape of filters as V-shaped or any other desired shape such as "non-rectangular parallelogram shape" since it is well settled that mere change of shape without affecting the function of the part would have been an obvious design modification. See Eskimo Pie Corp v. Levous et al 3 USPQ 23.

### ***Response to Amendment***

Applicant's arguments filed on December 12, 2005 have been fully considered but they are not persuasive.

Applicant argues that the primary reference "Stuble is directed toward a method of purifying air, not a method of cleaning a filter". The Examiner respectfully disagrees. The Examiner directs Applicant's attention to the abstract to Stuble wherein Stuble clearly discloses "the collecting device has a number of filtering portions which can be cleaned by at least one suction device" (see the abstract), and "each individual filter portion to be cleaned particularly quickly ... this derives from the suction means extending over each portion which has to be cleaned and from the need to make only a single linear motion in only one direction in order to clean the portion" (see col. 2, lines 3-9). Although throughout the entire document, Stuble discloses a method of cleaning

filters by drawing or sucking air out from the filter element, but Stuble does disclose on page 5, lines 10-13, as "the air to be purified can be **blown** or **sucked** through the filter device (10) by air conveying means such as at least one fan, bellows or the like (not shown)". Therefore, Stuble clearly discloses that the **method of cleaning filters** can be either blown or sucked through the filters and Stuble elects to illustrate his method of cleaning filter by sucking (instead of blowing) throughout the reference.

Applicant further argues that "Stuble also does not teach or suggest a filter element having a non-rectangular parallelogram shape". Regarding to claims 9-14 and 22, it is obvious to have the shape of filters as V-shaped or any other desired shape such as "non-rectangular parallelogram shape" since it is well settled that mere change of shape without affecting the function of the part would have been an obvious design modification. See *Eskimo Pie Corp v. Levous et al* 3 USPQ 23.

Applicant's arguments with respect to claims 1-20 and 22 have been thoroughly considered but are moot in view of the rejection, as discussed above.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh-Chau T. Pham whose telephone number is (571) 272-1163. The examiner can normally be reached on Mon/Tues/Thur/Fri 7:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**Minh-Chau Pham**  
**Patent Examiner**  
**Art Unit : 1724**  
**February 17, 2006**